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To: Water Use Efficiency; Alemi, Manucher
Cc: Obegi, Doug; Milman, Anita; Ronnie Cohen
Attachments: USC Comments-7-26-10.pdf

Attached please find the comments of the Natural Resources Defense Council regarding the July 12 draft Urban Water Use Target Technical Methodologies, Methodologies 1 through 4.

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To: Manucher Alemi, Chief, Water Use Efficiency Branch, DWR

From: Edward R. Osann, Senior Policy Analyst

Re: Comments on Urban Water Use Target Technical Methodologies – July 12 Draft Methodologies 1 through 4

Methodology 1: Gross Water Use

Step 2 – Delineate Distribution System Boundary. The Figure 1 – Urban Retail Water Supplier System Schematic should be edited. It is difficult to tell from this graphic if the “Possible distribution of raw water to M&I customers” falls within the system boundary. Raw water delivered to M&I customers should fall entirely within the system boundary.

Step 3 – Compile Water Volume from Own Sources. We support the proposed language that calls for calibration of production and import meters and the use of corrected values based upon such calibration for the determination of Gross Water Use. It should be noted that BMP 1.2 of the MOU on Urban Water Conservation in California calls for all signatory water suppliers to test the accuracy of their source, import, and production meters annually, as of the year beginning July 1, 2010. However, when compiling water volumes for determining Base Daily Per Capita Water Use, records going back 10 years or more require special consideration, because in the past, production meters at treatment plants may have been calibrated far less frequently than import meters. The DWR methodology should require the backcasting of adjustments when calibration is performed on production meters that have been tested less frequently than once per year, so that an accurate assessment of base period consumption can be presented. Otherwise, significant distortions can accumulate in the data of a 10-year baseline.

Additionally, footnote 5 is in error and should be removed. The “accuracy standard” cited in the note is applicable to *agricultural* suppliers measuring their deliveries to customers. Step 3 is about *urban* water suppliers measuring water volume from their own sources. AWWA Manual M6 contains guidance for measurement accuracy that is significantly more stringent than the range cited in the footnote. Furthermore, the purpose of calibration as called for in Step 3 is to determine the amount of inaccuracy in in-service source meters so that the metered volume can be corrected accordingly. The footnote implies that recorded volumes that fall within +/- 6% of actual (calibrated)

values may be used. This would introduce an unacceptably wide margin of error into the establishment of base water volumes.

Step 4 – Compile Imported Water Volume. Regarding the second bullet on imported raw water, it is not clear that imported raw water passing through the retail water supplier's treatment plants would have already been counted under Step 3. Step 3 specifies "The water supplier's own sources of supply entering the distribution system shall be identified and tallied." Imported raw water would likely not be considered part of a supplier's "own sources." This could be fixed by changing the phrase "which will already have been counted" to "if that water has already been counted under Step 3."

Step 6 – Calculate Net Change in Distribution System Storage. This provision should be modified to exclude storage fluctuations in tanks and reservoirs that are sized and positioned to respond to routine fluctuations in customer demand on a daily and seasonal basis. The statute allows for the exclusion of water placed in *long-term* storage, not just any storage. Facilities sized for year to year carry-over storage should be identified, and the provisions of Step 6 limited to such facilities. Unless so limited, the methodology will invite gaming of storage calculations in compliance years, as volumes recorded during the first and last day of the year can easily be manipulated.

Step 8 – Deduct Recycled Water Used for Indirect Potable Reuse from Gross Water Use. The third bullet is confusing, as it is unclear to what total volume is being referred. To avoid confusion the wording should be changed to read (underlined phrase is added) "The volume of water pumped from the basin by the urban retail water supplier expressed as a percentage of the total volume of water pumped from the basin by all who abstract water from that basin in the year for which Gross Water Use is being calculated."

Step 11 (Optional) – Deduct Volume of Water Delivered for Process Water Use. The concluding paragraph of this section would allow proration in instances where an urban water supplier supplies only part of an industrial water user's water supply. Proration only makes sense in cases where it is documented that publicly-supplied potable water is actually and routinely used in process water applications. One contrasting, but likely, scenario would be that publicly-supplied water is used for sanitation and HVAC while self-supplied water with minimal levels of on-site treatment is used as process water. An alternative scenario might be a bottling plant or a chip manufacturer where publicly-supplied water is used directly in process applications, or even perhaps treated on-site to a higher quality and then used in a process application. Either of the latter scenarios would be fair to prorate, but the first scenario should not qualify for proration.

Methodology 2: Service Area Population

Definition of the Service Area Population. The second bullet should clarify that the entire population of a facility served by a private groundwater supply may not be added to the service area population simply because of partial service to the facility. Facilities such as college campuses or military bases may be made up of multiple buildings, with

some being entirely supported by private supplies. We recommend the following edit (underlined) to the second sentence of this bullet:

“If such a user is wholly dependent on private supply, its residents should be excluded. If the user is partially dependent, using the water supplier’s potable supply for indoor use (for example, if it uses groundwater for irrigation only), its residents served with publicly supplied water should be included.”

Additionally, in the description of how to adjust the population for changes to the service area, a method should be included for accounting for the scenario when some segment leaves the service area. For example, this might occur if certain wells are shut due to water quality problems and the area receiving service from those wells is picked up by a neighboring provider.

Adjusting Population Estimates. This section allows, but does not require, use of the 2010 census to make adjustments in base year calculations, sometime in 2012. However, the process of adjusting base period calculations with 2010 data should itself be subject to guidance by DWR before being employed by urban suppliers. The 2010 census was accompanied by a strenuous effort to convince undocumented persons to respond. Thus the official count of the population in a variety of water service areas throughout California will indicate greater growth than actually occurred, as the 2000 statistics did not address this sector of the population. A water provider has no incentive to correct base period population estimates based on 2000 data because the result of more people being counted in the service area will be a lower gpcd in the base period, and thus a lower 2020 target. Depending on the location, this may actually have a sizeable impact. DWR’s population methodologies should encourage water service providers to account for undocumented persons in their baseline estimates, particularly as 2010 data becomes available.

Methodology 3: Base Daily per Capita Water Use

Revisions to Base Daily per Capita Water Use or Targets. The last paragraph of this section would broadly allow any water supplier to change its compliance path, i.e., its method used to set its target - for example if they start out on Method 2 but find that they can't do it, they can switch to Method 3. We strongly object. The statute appears to allow for water suppliers that *have chosen* Method 4 to revise their target to no more than 20% or to select a different compliance path if DWR revises Method 4. There is also an opportunity provided to any agency to “update” its 2020 target in its 2015 urban water management plan. However, section 10608.20(a)(1) calls for the development of water use targets by July 1, 2011, and 10608.20(b) states that “an urban retail water supplier shall adopt *one* of the following methods for determining its urban water use target pursuant to subdivision (a),” i.e., by July 1, 2011. While the base period water use calculation may be refined based on new information, the statute does not make provision for suppliers switching Methods after 2011, except for the special circumstances regarding Method 4 noted above. In the interest of equity, practicality of administration, and achievement of the 20% goal for the state as a whole, we believe that DWR should

not provide more accommodation for water suppliers to switch around compliance paths than is explicitly contained in the statute.

Methodology 4: Compliance Daily per Capita Water Use

Existing Large Partial Customers Become Whole Customers. According to the second bullet, if a large customer switches to the municipal source between the baseline and compliance years, that water can be excluded from the calculation. This allows that water user to continue to consume water at its previous rates. Why is this consumption excluded rather than pro-rating the reductions it should undertake, as is the case for other additions to a service area after the baseline period has ended?

Additionally, a term should be defined and used throughout to refer to the source of water provided by the water provider undertaking this calculation, as that source is inconsistently referred through in the text. For example on page 29 that water is referred to as the “municipal source” yet on page 17 it was referred to as the “potable source.”